

Mr. Richard Lyons  
Freesen, Inc.  
P.O. Box 350  
Bluffs, IL 62621

Re: Initial Site Approval (INDOT No.5213),  
F 171-11946, Plt ID 171-05213

Dear Mr. Lyons:

This letter grants approval to construct the portable hot mix drum asphalt manufacturing plant, INDOT No. 5213, described in Construction Permit No. 171-11946, to be initially located at Rogers Group, Highway 136, West of Covington, Indiana, in Warren County. Issuance of the validation letter cited in Construction Condition 6 of this permit will authorize operation at this site.

A two-week advance notice of start-up is required in order for IDEM to perform an inspection. If the plant is not operating in compliance with all applicable regulations upon inspection, the plant must cease operation upon notification to you by IDEM staff of such non-compliance. Operations may only resume once remedial actions have been taken.

If you have any questions concerning this permit, please contact Frank P. Castelli at the above address or via phone at or at 631-691-3395 or in Indiana 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

FPC/MES

cc: File - Warren County  
Warren County Health Department  
Air Compliance Inspector - Eric Courtright  
Administration & Development - Janet Mobley  
Compliance Data Section - Karen Nowak  
Technical Support Modeling - Michele Boner

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP)  
OFFICE OF AIR MANAGEMENT**

**Freesen, Inc.**  
**(portable)**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 171-11946-05213	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a portable drum hot mix asphalt manufacturing plant.

Authorized Individual: Richard Lyons  
Source Address: Initial - Roger Group, Highway 136, West of Covington, Indiana  
Mailing Address: P.O. Box 350, Bluffs, Illinois 62621  
Phone Number: 217 - 754 - 3304  
SIC Code: 2951  
County Location: Warren  
County Status: Attainment for all criteria pollutants  
Source Status: Federally Enforceable State Operating Permit (FESOP)  
Minor Source, under PSD and Emission Offset Rules;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This portable source consists of the following emission units and pollution control devices:

- (a) One (1) drum mixer, known as ES1, constructed in 1988, equipped with a baghouse, known as CD1, for particulate matter control, exhausted through Stack EP1, capacity: 325 tons of asphalt per hour.
- (b) One (1) dryer/burner, known as ES1, firing No. 3 distillate oil as a primary fuel and natural gas as backup fuel, rated at 75.6 million British thermal units per hour, also exhausting through Stack EP1, constructed in 1988.
- (c) One (1) hot oil heater, known as ES2, firing No. 2 distillate oil, rated at 0.600 million British thermal units per hour, exhausting through Stack EP2, constructed in 1988 (deemed an insignificant activity).
- (d) One (1) diesel oil-fired generator, known as GEN 1, rated at an output of 676 horsepower.
- (e) One (1) asphalt cement storage tank, known as AC-1, constructed in 1988, capacity: 30,000 gallons.
- (f) One (1) No. 3 distillate fuel oil storage tank, known as F-2, constructed in 1988, capacity: 15,000 gallons.
- (g) One (1) No. 2 distillate fuel oil storage tank for the hot oil heater, known as F-1, constructed in 1988, capacity: 375 gallons (deemed an insignificant activity).
- (h) One (1) No. 2 distillate fuel oil storage tank for the generator, known as F-3, constructed in 1988, capacity: 350 gallons (deemed an insignificant activity).

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This portable source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (d) Heat exchanger cleaning and repair.
- (e) Process vessel degassing and cleaning to prepare for internal repairs.
- (f) Paved and unpaved roads and parking lots with public access.

A.4 FESOP Applicability [326 IAC 2-8-2]

This portable source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

## GENERAL CONDITIONS

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

- (a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM.
- (b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

This permit does not convey any property rights of any sort, or any exclusive privilege.

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

(b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

(c) Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any

of the furnished records, the Permittee must furnish such records to IDEM, OAM, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAM may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:

- (1) Enforcement action;
- (2) Permit termination, revocation and reissuance, or modification; and
- (3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted under this permit shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on



the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

- (c) The annual compliance certification report shall include the following:
- (1) The identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was based on continuous or intermittent data;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAM, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section), or

Telephone No.: 317-233-5674 (ask for Compliance Section)

Facsimile No.: 317-233-5967

Failure to notify IDEM, OAM, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
- (2) An emergency as defined in 326 IAC 2-7-1(12); or
- (3) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.
- (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)]
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM, determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAM, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except

those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

(2) If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM, any additional information identified as needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) only if a certification is required by the terms of the applicable rule.

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

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- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any approval required by 326 IAC 2-1.1 has been obtained;
  - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
and  
  
United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590  
  
in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and
  - (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.  
  
Such records shall consist of all information required to be submitted to IDEM, OAM, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).
- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:
- (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.20 Construction Permit Requirement [326 IAC 2]**

A modification, construction, or reconstruction shall be approved if required by and in accordance with the applicable provisions of 326 IAC 2.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-8-5(a)(4)]

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-8-4(6)][326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)]

The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3 if such modifications occur during the term of this permit.



## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
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### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-3 (Emission Offset), emissions of particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC

4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. The provisions of 326 IAC 9-1-2 are not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on February 29, 2000. The plan consists of water to unpaved road with a water truck on an as-needed basis.

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.10 Performance Testing [326 IAC 3-6]**

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM, within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

Compliance with applicable requirements shall be documented as required by this permit. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**C.12 Maintenance of Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]**

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

**C.13 Monitoring Methods [326 IAC 3]**

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

**C.14 Pressure Gauge Specifications**

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) Submit:
  - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
  - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
  - (3) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4][326 IAC 2-8-5] [326 IAC 1-6]

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- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
  - (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
    - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall consti-

tute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
  - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
  - (3) An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

**C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.18 Monitoring Data Availability**

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is

operating at normal representative conditions.

- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements in (a) above.

C.19 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;

- (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.



### **Portable Source Requirement**

#### **C.21 Relocation of Portable Sources [326 IAC 2-14-4]**

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- (a) This permit is approved for operation in all areas of Indiana except in severe nonattainment areas for ozone (at the time of this permit's issuance these areas were Lake and Porter Counties). This determination is based on the requirements Prevention of Significant Deterioration in 326 IAC 2-2 and 40 CFR 52.21, and Emission Offset requirements in 326 IAC 2-3. A thirty (30) day advance notice of relocation must be given to IDEM, OAM and a "Relocation Site Approval" letter must be obtained before relocating.
- (b) The Permittee shall also notify the applicable local air pollution control agency when relocating to or from one of the following:
  - (1) Madison County - (Anderson Office of Air Management)
  - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County - (Evansville EPA)
  - (3) City of Gary - (Gary Division of Air Pollution)
  - (4) City of Hammond - (Hammond Department of Environmental Management)
  - (5) Marion County - (Indianapolis Air Pollution Control Agency)
  - (6) St. Joseph County - (St. Joseph County Health Department)
  - (7) Vigo County - (Vigo County Air Pollution Department)
- (c) That a valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.

### **Stratospheric Ozone Protection**

#### **C.22 Compliance with 40 CFR 82 and 326 IAC 22-1**

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- Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:
- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
  - (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
  - (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

## **Construction Conditions**

### **General Construction Conditions**

- C.23 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### **Effective Date of the Permit**

- C.24 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.
- C.25 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

### **First Time Operation Permit**

- C.26 This document shall also become the first-time operation permit for the facilities under this section of this permit, pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
- (a) The attached affidavit of construction be sure to attach the affidavit of construction to this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration & Development Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
verifying that the facilities were constructed as proposed in the application. The facilities covered in this section of this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
  - (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this permit.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) drum mixer, known as ES1, constructed in 1988, equipped with a baghouse, known as CD1, for particulate matter control, exhausted through Stack EP1, capacity: 325 tons of asphalt per hour.
- (b) One (1) dryer/burner, known as ES1, firing No. 3 distillate oil as a primary fuel and natural gas as backup fuel, rated at 75.6 million British thermal units per hour, also exhausting through Stack EP1, constructed in 1988 .
- (c) One (1) hot oil heater, known as ES2, firing No. 2 distillate oil, rated at 0.600 million British thermal units per hour, exhausting through Stack EP2, constructed in 1988 (deemed an insignificant activity).
- (d) One (1) diesel oil-fired generator, known as GEN 1, rated at an output of 676 horsepower.
- (e) One (1) asphalt cement storage tank, known as AC-1, constructed in 1988, capacity:30,000 gallons.
- (f) One (1) No. 3 distillate fuel oil storage tank, known as F-2, constructed in 1988, capacity: 15,000 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-5(1)]

#### D.1.1 NO<sub>x</sub> [326 IAC 2-8]

- (a) The total input of equivalent No. 3 distillate fuel oil to the aggregate dryer/burner shall be limited to 2,852,700 gallons per twelve (12) consecutive month period. This fuel limit is equivalent to less than 28.53 tons per year of NO<sub>x</sub>. Compliance with this limit will assure that the NO<sub>x</sub> emissions from the entire source shall remain less than one hundred (100) tons per year.
- (b) For purposes of determining compliance based on NO<sub>x</sub> emissions each million cubic feet of natural gas shall be equivalent to 5,000 gallons of No. 3 oil.

#### D.1.2 Sulfur Dioxide [326 IAC 7-1.1]

Sulfur dioxide emissions from the dryer/burner shall be limited to 0.5 pounds per million British thermal units heat input, equivalent to a sulfur content of the No. 3 distillate oil of 0.5 percent by weight.

#### D.1.3 Particulate Matter (40 CFR Part 60.90, Subpart I) (326 IAC 6-1)

Pursuant to NSPS Subpart I the PM emission rate from the hot mix drum dryer/burner exhausting through Stack EP1 shall not exceed 0.04 grains per dry standard cubic foot equivalent to 8.04 pounds per hour (35.2 tons per year) at a flow rate of 19,507 dry standard cubic feet per minute. The 19,507 dry standard cubic feet per minute flow rate is equivalent to 31,800 actual cubic feet per minute at a temperature of 250 degrees Fahrenheit and a moisture content of 1.0 percent.

This PM emission limit also satisfies the requirements of 326 IAC 6-1 for this portable plant.

**D.1.4 PM<sub>10</sub> [326 IAC 2-8-4]**

Pursuant to 326 IAC 2-8-4, PM<sub>10</sub> emissions from the hot mix drum dryer/burner exhausting through Stack EP1 shall not exceed 21.2 pounds per hour (92.9 tons per year). Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

**D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]**

- (a) Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: asphalt paving), the owner or operator shall: not cause or allow the use of asphalt emulsion containing more than seven (7.0) percent oil distillate by volume of emulsion for any paving application except the following purposes:
- (1) penetrating prime coating
  - (2) stockpile storage
  - (3) application during the months of November, December, January, February and March
- (b) No cutback asphalt or emulsified asphalt shall be used at this plant without prior approval from OAM.

**D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.1.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]**

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM<sub>10</sub> testing of the dryer/burner exhausting through Stack EP1 utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM<sub>10</sub>, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

**D.1.8 Particulate Matter (PM)**

The baghouse for PM control shall be in operation and control emissions from dryer/burner (ES1) at all times that dryer/burner (ES1) is in operation and exhausting to the outside atmosphere.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.9 Visible Emissions Notations**

- (a) Visible emission notations of the baghouse stack exhaust EP1 shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

#### D.1.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the drying/mixing process, at least once per shift when the asphalt production process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 1.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

#### D.1.11 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### D.1.12 Record Keeping Requirements

- (a) To document compliance with Condition D.1.9, the Permittee shall maintain records of visible emission notations of the baghouse stack exhaust once per shift.
- (b) To document compliance with Condition D.1.10, the Permittee shall maintain the following:
  - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency and differential pressure.

- (2) Documentation of all response steps implemented, per event.
  - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
  - (4) Quality Assurance/Quality Control (QA/QC) procedures.
  - (5) Operator standard operating procedures (SOP).
  - (6) Manufacturer's specifications or its equivalent.
  - (7) Equipment "troubleshooting" contingency plan.
  - (8) Documentation of the dates vents are redirected.
- (c) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below.
- (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil and natural gas usage since last compliance determination period and equivalent NO<sub>x</sub> emissions;
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and
- If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
- (4) Fuel supplier certifications;
  - (5) The name of the fuel supplier; and
  - (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.13 Reporting Requirements

Quarterly summary to document compliance with operation condition number D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter or six (6) month period being reported. These reports shall include the amounts of each fuel used each month. All records and reports shall use calendar months. Records of sulfur content and higher heating value shall be determined by information as obtained by the vendor.

**SECTION D.2**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]: - Insignificant Activities**

- (a) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month consisting of: One (1) No. 2 distillate fuel oil storage tank for the hot oil heater, known as F-1, constructed in 1988, capacity: 375 gallons and one (1) No. 2 distillate fuel oil storage tank for the generator, known as F-3, constructed in 1988, capacity: 350 gallons.
- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (d) Heat exchanger cleaning and repair.
- (e) Process vessel degassing and cleaning to prepare for internal repairs.
- (f) Paved and unpaved roads and parking lots with public access.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

There are no applicable rules to these insignificant emission units.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Freesen, Inc.  
Source Address: Initial - Roger Group, Highway 136, West of Covington, Indiana  
Mailing Address: P.O. Box 350, Bluffs, Illinois 62621  
FESOP No.: F 171-11946-05213

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Freesen, Inc.  
Source Address: Initial - Roger Group, Highway 136, West of Covington, Indiana  
Mailing Address: P.O. Box 350, Bluffs, Illinois 62621  
FESOP No.: F 171-11946-05213

**This form consists of 2 pages**

**Page 1 of 2**

Check either No. 1 or No.2

- 9** 1. This is an emergency as defined in 326 IAC 2-7-1(12)  
The Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
- 9** 2. This is a deviation, reportable per 326 IAC 2-8-4(3)(C)  
The Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency/Deviation:

Describe the cause of the Emergency/Deviation:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR MANAGEMENT**  
**COMPLIANCE DATA SECTION**  
**FESOP Quarterly Report**

Source Name: Freesen, Inc.  
Source Address: Initial - Roger Group, Highway 136, West of Covington, Indiana  
Mailing Address: P.O. Box 350, Bluffs, Illinois 62621  
FESOP No.: F 171-11946-05213  
Facility: ES1, Dryer/Burner  
Parameter: NO<sub>x</sub>  
Limit: 2,852,700 gallons of No. 3 fuel oil or equivalent fuel per twelve (12) month rolling period, equivalent to NO<sub>x</sub> emissions of 28.53 tons per year. One (1) million cubic feet of natural gas is equivalent to 5,000 gallons of No. 3 fuel oil.

YEAR: \_\_\_\_\_

Month	No. 3 Fuel Oil Equivalent	No. 3 Fuel Oil Equivalent	No. 3 Fuel Oil Equivalent
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this month.  
9 Deviation/s occurred in this month.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title/Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY COMPLIANCE MONITORING REPORT**

Source Name: Freese, Inc.  
Source Address: Initial - Roger Group, Highway 136, West of Covington, Indiana  
Mailing Address: P.O. Box 350, Bluffs, Illinois 62621  
FESOP No.: F 171-11946-05213

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

**9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.**

**9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.**

<b>Compliance Monitoring Requirement</b> (eg. Permit Condition D.1.3)	<b>Number of Deviations</b>	<b>Date of each Deviation</b>

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

Indiana Department of Environmental Management  
Office of Air Management

Technical Support Document (TSD)  
for a Federally Enforceable State Operating Permit (FESOP)

**Source Background and Description**

<b>Source Name:</b>	<b>Freesen, Inc.</b>
<b>Initial Source Location:</b>	<b>Rogers Group, Highway 136, West of Covington, Indiana</b>
<b>County:</b>	<b>Warren</b>
<b>SIC Code:</b>	<b>2951</b>
<b>Operation Permit No.:</b>	<b>F 171-11946-05213</b>
<b>Permit Reviewer:</b>	<b>Frank P. Castelli</b>

The Office of Air Management (OAM) has reviewed a FESOP application from Freesen, Inc. relating to the operation of a portable hot mix drum asphalt manufacturing plant.

**Source Definition**

Freesen, Inc. has verified that there are no other portable or stationary asphalt plants or other processing sources located at this initial site.

**Permitted Emission Units and Pollution Control Equipment**

There are no permitted facilities operating at this source during this review process.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

**New Emission Units and Pollution Control Equipment Receiving Prior Approval**

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

One (1) portable drum mix asphalt plant, capacity: 325 tons of hot mix asphalt per hour consisting of:

- (a) One (1) drum mixer, known as ES1, constructed in 1988, equipped with a baghouse, known as CD1, for particulate matter control, exhausted through Stack EP1, capacity: 325 tons of asphalt per hour.
- (b) One (1) dryer/burner, known as ES1, firing No. 3 distillate oil as a primary fuel and natural gas as backup fuel, rated at 75.6 million British thermal units per hour, also exhausting through Stack EP1, constructed in 1988 .

- (c) One (1) hot oil heater, known as ES2, firing No. 2 distillate oil, rated at 0.600 million British thermal units per hour, exhausting through Stack EP2, constructed in 1988 (deemed an insignificant activity).
- (d) One (1) diesel oil-fired generator, known as GEN 1, rated at an output of 676 horsepower.
- (e) One (1) asphalt cement storage tank, known as AC-1, constructed in 1988, capacity: 30,000 gallons.
- (f) One (1) No. 3 distillate fuel oil storage tank, known as F-2, constructed in 1988, capacity: 15,000 gallons.
- (g) One (1) No. 2 distillate fuel oil storage tank for the hot oil heater, known as F-1, constructed in 1988, capacity: 375 gallons (deemed an insignificant activity).
- (h) One (1) No. 2 distillate fuel oil storage tank for the generator, known as F-3, constructed in 1988, capacity: 350 gallons (deemed an insignificant activity).

### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (d) Heat exchanger cleaning and repair.
- (e) Process vessel degassing and cleaning to prepare for internal repairs.
- (f) Paved and unpaved roads and parking lots with public access.

### **Existing Approvals**

There are no existing approvals for this new source.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Recommendation**

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP application for the purposes of this review was received on February 29, 2000. Additional information was received on March 27 and 28, 2000.

### Emission Calculations

See pages 1 through 13 of 13 of Appendix A of this document for detailed emissions calculations.

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	27,234
PM <sub>10</sub>	6,299
SO <sub>2</sub>	144
VOC	3.91
CO	44.1
NO <sub>x</sub>	118

Note: For the purpose of determining Title V applicability for particulates, PM<sub>10</sub>, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Lead	0.005
All Other HAPs	8.26
TOTAL	less than 10

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM<sub>10</sub>, NO<sub>x</sub> and SO<sub>2</sub> is equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

- (c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

### Actual Emissions

No previous emission data has been received from this new source.

### Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Asphalt Production	27.0 (35.2)	6.26 (<92.9)	82.1	0.491	7.23	<28.9	<10
Diesel Engine Generator	2.07	2.07	9.58	2.09	16.3	71.1	negligible
Insignificant Activities	5.00	5.00	0.00	5.00	0.00	0.00	0.00
Total Emissions	34.1 (42.3)	13.3 (<100)	91.7	7.58	23.5	<100	Single <10 Total <25

Note: The values in parentheses for PM is the allowable emissions pursuant to NSPS Subpart I. The value in parentheses for PM<sub>10</sub> is the maximum emission rate that will allow compliance pursuant to 326 IAC 2-8.

The applicant has accepted a No. 3 fuel oil limit to the dryer/burner of less than 2,852, 700 gallons per twelve (12) month rolling period which is equivalent to a NO<sub>x</sub> limit of less than 28.53 tons per year (see page 10 of 13 in Appendix A). This fuel limit was based on the unlimited potential to emit NO<sub>x</sub> from the diesel generator and the hot oil heater, a total of 71.5 (71.1 + 0.373) tons per year. Therefore, the fuel oil limit on the dryer/burner will assure that the total NO<sub>x</sub> emissions will not exceed one hundred (100) tons per year.

For purposes of determining compliance based on NO<sub>x</sub> emissions each million cubic feet of natural gas shall be equivalent to 5,000 gallons of No. 3 oil.

### County Attainment Status

The source is located in Warren County.



Pollutant	Status
PM <sub>10</sub>	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Warren County has been designated as attainment or unclassifiable for ozone.

#### Portable Source

- (a) Initial Location  
This is a portable source and its initial location is Rogers Group, Highway 136, West of Covington, Indiana.
- (b) PSD and Emission Offset Requirements  
The emissions from this portable source were reviewed under the requirements of the Prevention of Significant Deterioration (PSD), 326 IAC 2-2, 40 CFR 52.21, and Emission Offset, 326 IAC 2-3.
- (c) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed sources under 326 IAC 2-2 the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

#### Federal Rule Applicability

- (a) The portable hot mix drum asphalt production plant is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I) because the plant was constructed after the June 11, 1973 applicability date of this subpart. This rule limits the outlet grain loading of the hot mix drum asphalt production plant to 0.04 grains per dry standard cubic foot air and visible emissions from the plant shall not exceed twenty (20%) percent opacity. Compliance with these limits will also satisfy 326 IAC 5-1 and 326 IAC 6-1. The source complies with this rule as shown on page 9 of 13 of Appendix A. The baghouse shall be in operation at all times that ES1 is in operation, in order to comply with NSPS Subpart I.
- (b) The 30,000 gallon asphalt cement storage tank and the 15,000 gallon fuel oil storage tank, are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) since their capacities are each greater than 40 cubic meters and were constructed after the July 23, 1984 applicability date.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, applicable to this source.

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-3 (Emission Offset)**

The source has agreed to limit the No. 3 fuel oil to the portable dryer/burner to 2,852,700 gallons per twelve (12) consecutive month period equivalent to 28.53 tons of NO<sub>x</sub> per year to avoid the applicability of 326 IAC 2-3. This portable source has agreed not to relocate to an area designated as severe nonattainment for ozone.

#### **326 IAC 2-6 (Emission Reporting)**

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it will not emit more than one hundred (100) tons per year of PM<sub>10</sub>, NO<sub>x</sub>, or SO<sub>2</sub>.

#### **326 IAC 2-8-4 (FESOP)**

Pursuant to 326 IAC 2-8-4:

- (a) The amount of PM<sub>10</sub>, from dryer/burner, known as ES1, shall be limited to less than 21.2 pounds per hour, equivalent to less than 92.9 tons per year.
- (b) The applicant has accepted a No. 3 fuel oil limit to the dryer/burner of less than 2,852,700 gallons per twelve (12) month rolling period which is equivalent to a NO<sub>x</sub> limit of less than 28.53 tons per year (see page 10 of 13 in Appendix A). This fuel limit was based on the unlimited potential to emit NO<sub>x</sub> from the diesel generator and the hot oil heater, a total of 71.5 (71.1 + 0.373) tons per year. Therefore, the fuel oil limit on the dryer/burner will assure that the total NO<sub>x</sub> emissions will not exceed one hundred (100) tons per year. Complying with this No. 3 fuel limit also assures that the SO<sub>2</sub> emissions from the source will be less than one hundred (100) tons per year.

Therefore, the requirements of 326 IAC 2-7, do not apply.

#### **326 IAC 5-1-2 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### **326 IAC 6-1 (Nonattainment Area Limitations)**

In order to be able to relocate this portable plant to any nonattainment county designated by 326 IAC 6-1-7, the portable plant facilities shall meet the allowable PM emission limitation pursuant to 326 IAC 6-1-2 (c) of 0.10 grains per standard dry cubic feet per minute. Since the NSPS Subpart I is more stringent, compliance with NSPS Subpart I will satisfy the requirements of this rule.

326 IAC 7-1.1-2 (Sulfur dioxide emission limitations)

The hot oil heater and the diesel generator are not subject to the requirements of this rule since the potential sulfur dioxide emissions are less than ten (10) pounds per hour and twenty-five (25) tons per year each.

However, sulfur dioxide (SO<sub>2</sub>) emissions from the 75.6 million British thermal units per hour dryer/burner shall be limited to 0.5 pounds per million British thermal units heat input for distillate oil consumption.

Sulfur dioxide emissions from page 2 of 13 of Appendix A are 30.5 pounds per hour for dryer/mixer on No. 3 oil. Therefore 30.5 pounds of SO<sub>2</sub> per hour divided by 75.6 million British thermal units per hour equals 0.403 pounds of SO<sub>2</sub> per million British thermal units. Therefore, the dryer/burner on No.3 fuel oil complies with this rule.

326 IAC 8-4-3 (Petroleum liquid storage facilities)

The liquid asphalt and the fuel oil storage tanks, each with capacities of 30,000 and 15,000 gallons, respectively, are not subject to the requirement of this rule because their capacities are less than the applicability threshold of 39,000 gallons.

**State Rule Applicability - Individual Facilities**

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires that the source not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

This rule requires a fugitive dust plan to be submitted. The plan was submitted on February 29, 2000 was reviewed, and approved and consists of applying water to unpaved roads with a water truck on an as-needed basis.

326 IAC 8-5-2 (Miscellaneous Operations: asphalt paving)

No person shall cause or allow the use of asphalt emulsion containing more than seven (7%) percent oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) penetrating prime coating
- (b) stockpile storage
- (c) application during the months of November, December, January, February and March

Emulsified asphalt will not be produced at this source.

**Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement

for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

The dryer/burner has applicable compliance monitoring conditions as specified below:

- (a) Daily visible emissions notations of the baghouse shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.
- (b) The Permittee shall record the total static pressure drop across the baghouse controlling the dryer/burner, at least once per shift when the dryer/mixer is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the cyclone and baghouse connected in series shall be maintained within the range of 1 to 6 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

These monitoring conditions are necessary because the baghouse for ES1 must operate properly to ensure compliance with 326 IAC 5-1 (Opacity), 326 IAC 6-3 (Process Operations), 326 IAC 2-8 (FESOP) and NSPS Subpart I.

### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

- (b) See attached calculations on page 4 of 13 for detailed air toxic calculations.

**Conclusion**

The operation of this portable drum hot mix asphalt manufacturing plant shall be subject to the conditions of the attached proposed FESOP No: F 171-11946-05213.

## Appendix A: Emission Calculations

Company Name: Freesen, Inc.  
Plant Location: Rogers Group, Highway 136 West of Covington, Indiana  
County: Warren  
Part 70: F 171-11946  
Plt. ID: 171-05213  
Date: February 29, 2000  
Permit Reviewer: Frank P. Castelli

### Portable Warm Drum Mix Asplant

#### I. Potential Emissions

##### A. Source emissions before controls

##### Hot Oil Heater on Oil (oil/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by #3, #2 & #1 distillate fuel oil @ 0.4 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.600</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>141000.0</u> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.037</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.062</u> tons/yr
S O x:	56.8 lbs/1000 gal =	<u>1.059</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.373</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.006</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.093</u> tons/yr

##### Hot Oil Heater on Gas (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>0.000</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>0.000</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.000</u> tons/yr

##### Dryer Burner (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>75.600</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.6291</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>2.517</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.199</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>33.1128</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>1.821</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>27.815</u> tons/yr

**Dryer Burner (gas/>100MMBTU/uncontrolled)**

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<b>0.000</b> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<b>0.000</b> tons/yr
P M-10:	7.6 lbs/MMcf =	<b>0.000</b> tons/yr
S O x:	0.6 lbs/MMcf =	<b>0.000</b> tons/yr
N O x:	280.0 lbs/MMcf =	<b>0.00</b> tons/yr
V O C:	5.5 lbs/MMcf =	<b>0.000</b> tons/yr
C O:	84.0 lbs/MMcf =	<b>0.000</b> tons/yr

**Dryer Burner (gas/>100MMBTU/low nox)**

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3 (low NOx burner = 140, flue gas recirculation = 100)

Pollutant:	<b>0.000</b> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<b>0.000</b> tons/yr
P M-10:	7.6 lbs/MMcf =	<b>0.000</b> tons/yr
S O x:	0.6 lbs/MMcf =	<b>0.000</b> tons/yr
N O x:	140.0 lbs/MMcf =	<b>0.000</b> tons/yr
V O C:	5.5 lbs/MMcf =	<b>0.000</b> tons/yr
C O:	84.0 lb/MMcf =	<b>0.000</b> tons/yr

**(#3 oil) Dryer Burner <100**

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ **0.4** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<b>75.6</b> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<b>141000.0</b> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<b>4.697</b> tons/yr
PM-10:	3.3 lbs/1000 gal =	<b>7.750</b> tons/yr
S O x:	56.8 lbs/1000 gal =	<b>133.391</b> tons/yr
N O x:	20.0 lbs/1000 gal =	<b>46.969</b> tons/yr
V O C:	0.34 lbs/1000 gal =	<b>0.798</b> tons/yr
C O:	5.0 lbs/1000 gal =	<b>11.742</b> tons/yr

If Rating >100 mmBtu	
N O x:	<b>24.0</b>
V O C:	<b>0.20</b>

**(#4 oil/ <100MMBTU) Dryer Burner**

The following calculations determine the amount of emissions created by #4 distillate fuel oil @ **0.5** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<b>0.000</b> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<b>138000.0</b> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<b>0.000</b> tons/yr
PM-10:	3.3 lbs/1000 gal =	<b>0.000</b> tons/yr
S O x:	71.0 lbs/1000 gal =	<b>0.000</b> tons/yr
N O x:	20.0 lbs/1000 gal =	<b>0.000</b> tons/yr
V O C:	0.34 lbs/1000 gal =	<b>0.000</b> tons/yr
C O:	5.0 lbs/1000 gal =	<b>0.000</b> tons/yr

**(#4 oil/ >100MMBTU)****Dryer Burner**

The following calculations determine the amount of emissions created by #4 distillate  
fuel oil @ 0.000 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>0.0</u> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

**(waste oil/ vaporizing burner)**

The following calculations determine the amount of emissions created by waste  
fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.11

	<u>0.000</u>	% Ash
	<u>0.000</u>	% Lead

Pollutant:	<u>0.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>0.0</u> Btu/gal * 2000 lbs/ton	
P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	50.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	11.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	1.7 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr

**(waste oil/atomizing burner)**

The following calculations determine the amount of emissions created by waste  
fuel oil @ 0.000 % sulfur, based on 8760 hours of use and AP-42 Chapter 1.11

	<u>0.000</u>	% Ash
	<u>0.000</u>	% Lead

Pollutant:	<u>0.000</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>0.000</u> Btu/gal * 2000 lbs/ton	
P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	16.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	2.10 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.00 lbs/1000 gal =	<u>0.000</u> tons/yr



**\*\* aggregate drying: drum-mix plant \*\***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	19 lbs/ton x	<u>325.0</u>	tons/hr x	8760 hrs/yr =	<u>27046.500</u> tons/yr
		2000	lbs/ton		
P M-10:	4.4 lbs/ton x	<u>325</u>	tons/hr x	8760 hrs/yr =	<u>6263.400</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>325</u>	tons/hr x	8760 hrs/yr =	<u>0.005</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0058 lbs/ton x	<u>325</u>	tons/hr x	8760 hrs/yr =	<u>8.256</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**\*\* aggregate drying: batch-mix plant \*\***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	32 lbs/ton x	<u>0.0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u> tons/yr
		2000	lbs/ton		
P M-10:	4.5 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0058 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**\*\* conveying / handling \*\***

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032^* \frac{(U/5)^{1.3} * k}{(M/2)^{1.4}} \quad \underline{\underline{0.026 \text{ lbs/ton}}}$$

where k= 1 (particle size multiplier)  
U = 12 mph mean wind speed (worst case)  
M = 1.0 % moisture

P M :	<u>0.026</u> lbs/ton x	<u>200</u> tons/hr x	8760 hrs/yr =	<u>23.087</u> tons/yr	
		2000 lbs/ton			
P M-10:	10% of PM =			<u>2.309</u> tons/yr	
<b>Screening</b>	PM: <u>308</u> tons/hr x	0.0315 lbs/ton	/ 2000 lbs/ton x	8760 hrs/yr =	<u>42.495</u> tons/yr
	P M-10: 10% of PM =			<u>4.249</u> tons/yr	AP-42 Ch.11.19.2

**\* \* unpaved roads \* \***

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

**A. Tri-axle Truck**

<u>0.0</u> trips/hr x				
<u>0.00</u> miles/roundtrip x				
8760 hrs/yr =		<u>0.0</u> miles per year		

  

<b>For PM</b>	<b>For PM-10</b>		
11.24	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M_{dry}/0.2)^c] \cdot [(365-p)/365]\}$		
10	= 2.27 lb/mile		
4.8	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
0.5	s = 4.8 mean % silt content of unpaved roads		
0.4	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
38	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)		
0.2	W = 38 tons average vehicle weight		
125	M <sub>dry</sub> = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)		
	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)		
	11.24 lb/mi x 0 mi/yr = PM <u>0.00</u> tons/yr		
	2000 lb/ton		
	2.27 lb/mi x 0 mi/yr = PM-10 <u>0.00</u> tons/yr		
	2000 lb/ton		

B. Front End Loader

<u>61.6</u> trips/hr x			
<u>0.038</u> miles/roundtrip x			
8760 hrs/yr =		<u>20440.0</u> miles per year	
For PM	For PM-10		
	Ef = {k*[(s/12)^0.8]*[(W/3)^b]/[(Mdry/0.2)^c]}*[(365-p)/365]		
11.24	= 1.84 lb/mile		
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
4.8	s = 4.8 mean % silt content of unpaved roads		
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)		
38	W = 23 tons average vehicle weight		
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)		
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)		
<u>11.24</u> lb/mi x		<u>20440</u> mi/yr =	PM <u>114.91</u> tons/yr
2000 lb/ton			
<u>1.84</u> lb/mi x		<u>20440</u> mi/yr =	PM-10 <u>18.79</u> tons/yr
2000 lb/ton			

### C. Semi Truck

<u>0.0</u> trips/hr x				
<u>0.0</u> miles/roundtrip x				
8760 hrs/yr =		<u>0.0</u> miles per year		
<b>For PM</b>	<b>For PM-10</b>			
11.24	$E_f = \{k * [(s/12)^{0.8}] * [(W/3)^a b] / [(M_{dry}/0.2)^c] * [(365-p)/365]\}$			
10	= 2.27 lb/mile			
4.8	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
0.5	s = 4.8 mean % silt content of unpaved roads			
0.4	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
38	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
0.2	W = 38 tons average vehicle weight			
125	M <sub>dry</sub> = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
	11.24 lb/mi x	0 mi/yr =	PM	<u>0.00</u> tons/yr
	2000 lb/ton			
	2.27 lb/mi x	0 mi/yr =	PM-10	<u>0.00</u> tons/yr
	2000 lb/ton			
<b>All Trucking</b>	Total PM: <u>114.91</u> tons/yr			
	Total PM-10: <u>18.79</u> tons/yr			

### \* \* storage \* \*

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

$E_f = 1.7 * (s/1.5) * (365-p)/235 * (f/15)$	
= 1.74 lbs/acre/day for sand	
= 1.16 lbs/acre/day for stone	
= 1.16 lbs/acre/day for slag	
= 1.16 lbs/acre/day for gravel	
= 1.16 lbs/acre/day for RAP	
where s = 1.5 % silt for sand	
s = 1.0 % silt of stone	
s = 1.0 % silt of slag	
s = 1.0 % silt of gravel	
s = 1.0 % silt for RAP	
p = 125 days of rain greater than or equal to 0.01 inches	
f = 15 % of wind greater than or equal to 12 mph	
$E_p (\text{storage}) = E_f * sc * (20 \text{ cuft/ton}) * (365 \text{ days/yr})$	
$(2000 \text{ lbs/ton}) * (43560 \text{ sqft/acre}) * (25 \text{ ft})$	
= 0.058 tons/yr for sand	
= 0.155 tons/yr for stone	
= 0.058 tons/yr for slag	
= 0.000 tons/yr for gravel	
= 0.000 tons/yr for RAP	
Total PM: <u>0.272</u> tons/yr	
where sc = <u>10.0</u> ,000 tons storage capacity for sand	
sc = <u>40.0</u> ,000 tons storage capacity for stone	
sc = <u>15</u> ,000 tons storage capacity for slag	
sc = <u>0</u> ,000 tons storage capacity for gravel	
sc = <u>0</u> ,000 tons storage capacity for RAP	

P M-10:	35% of PM =	0.020 tons/yr for sand
	35% of PM =	0.054 tons/yr for stone
	35% of PM =	0.020 tons/yr for slag
	35% of PM =	0.000 tons/yr for gravel
	35% of PM =	0.000 tons/yr for RAP
Total PM-10:		<b>0.095 tons/yr</b>

Emissions before controls (combustion plus production) are as follows:

natural gas		#2 oil		#4 oil	Plus Hot Oil Heater on #2	waste oil	
P M:	<b>27228</b> tons/yr	P M:	<b>27232.0</b> tons/yr	P M:	<b>0.000</b> tons/yr	P M:	<b>0.000</b> tons/yr
P M-10:	<b>6291</b> tons/yr	P M-10:	<b>6296.7</b> tons/yr	P M-10:	<b>0.000</b> tons/yr	P M-10:	<b>0.000</b> tons/yr
S O x:	<b>0.199</b> tons/yr	S O x:	<b>134.4</b> tons/yr	S O x:	<b>1.059</b> tons/yr	S O x:	<b>0.000</b> tons/yr
N O x:	<b>33.1</b> tons/yr	N O x:	<b>47.3</b> tons/yr	N O x:	<b>0.373</b> tons/yr	N O x:	<b>0.000</b> tons/yr
V O C:	<b>1.821</b> tons/yr	V O C:	<b>0.805</b> tons/yr	V O C:	<b>0.006</b> tons/yr	V O C:	<b>0.000</b> tons/yr
C O:	<b>27.8</b> tons/yr	C O:	<b>11.8</b> tons/yr	C O:	<b>0.093</b> tons/yr	C O:	<b>0.000</b> tons/yr
Lead:	<b>0.005</b> tons/yr	Lead:	<b>0.005</b> tons/yr	Lead:	<b>0.005</b> tons/yr	Lead:	<b>0.005</b> tons/yr
HAPs:	<b>8.26</b> tons/yr	HAPs:	<b>8.26</b> tons/yr	HAPs:	<b>8.256</b> tons/yr	HAPs:	<b>0.000</b> tons/yr

## B. Source emissions after controls

### dryer combustion: gas

P M:	0.63 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.001</b> tons/yr
P M-10:	2.52 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.003</b> tons/yr

### dryer combustion: #2 oil

P M:	4.70 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.005</b> tons/yr
P M-10:	7.75 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.008</b> tons/yr

### hot oil heater combustion: gas

P M:	0.000 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.000</b> tons/yr
P M-10:	0.000 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.000</b> tons/yr

### hot oil heater combustion: #2 oil

P M:	0.037 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.037</b> tons/yr
P M-10:	0.062 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.062</b> tons/yr

### dryer combustion: #4 oil

P M:	0.00 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.000</b> tons/yr
P M-10:	0.00 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.000</b> tons/yr

### dryer combustion: waste oil

P M:	0.00 tons/yr x	<b>0.000</b> emitted after controls =	<b>0.000</b> tons/yr
P M-10:	0.00 tons/yr x	<b>0.000</b> emitted after controls =	<b>0.000</b> tons/yr

### aggregate drying:

P M:	27046.50 tons/yr x	<b>0.00100</b> emitted after controls =	<b>27.047</b> tons/yr
P M-10:	6263.40 tons/yr x	<b>0.00100</b> emitted after controls =	<b>6.263</b> tons/yr

### conveying/handling:

P M:	23.09 tons/yr x	<b>1.000</b> emitted after controls =	<b>23.087</b> tons/yr
P M-10:	2.31 tons/yr x	<b>1.000</b> emitted after controls =	<b>2.309</b> tons/yr

**screening**

P M:	42.49 tons/yr x	<u>1.000</u> emitted after controls =	<u>42.495</u> tons/yr
P M-10:	4.25 tons/yr x	<u>1.000</u> emitted after controls =	<u>4.249</u> tons/yr

**unpaved roads:**

P M:	114.91 tons/yr x	50.00% emitted after controls =	<u>57.454</u> tons/yr
P M-10:	18.79 tons/yr x	50.00% emitted after controls =	<u>9.397</u> tons/yr

**storage:**

P M:	0.272 tons/yr x	50.00% emitted after controls =	<u>0.136</u> tons/yr
P M-10:	0.095 tons/yr x	50.00% emitted after controls =	<u>0.048</u> tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	#4 Oil	Waste Oil	
P M:	<u>150.2</u>	<u>150.3</u>	<u>0.000</u>	<u>0.000</u>	tons/yr
P M-10:	<u>22.3</u>	<u>22.3</u>	<u>0.000</u>	<u>0.000</u>	tons/yr

**II. Allowable Emissions**

A. The following calculations determine compliance with NSPS Subpart I, which limits stack emissions from asphalt plants to 0.04 gr/dscf:

$$\begin{aligned}
 & \frac{0.04 \text{ grains}}{\text{dscf}} \times \frac{31800.000 \text{ acfm}}{\text{min}} \times \frac{1 \text{ min}}{60 \text{ sec}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{100}{100 - 1\% \text{ moisture}} \\
 & = \frac{525600 \text{ minutes}}{\text{year}} \times \frac{1}{7000 \text{ grains}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \underline{35.158 \text{ tons/yr}}
 \end{aligned}$$

To meet NSPS Subpart I, the following value must be < amount calculated above 27.1 tons/yr

B. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

$$\begin{aligned}
 & \text{limit: } 0.5 \text{ lbs/MMBtu} \\
 & 0.5 \text{ lbs/MMBtu} \times \frac{141000.0 \text{ Btu/gal}}{1000000} = \underline{70.5 \text{ lbs/1000gal}} \\
 & 70.5 \text{ lbs/1000gal} / \underline{142.0 \text{ lb/1000 gal}} = \underline{0.496} \\
 & \text{Sulfur content must be less than or equal to } \underline{0.496} \% \text{ to comply with 326 IAC 7}
 \end{aligned}$$

C. The following calculations determine the maximum sulfur content of residual waste fuel oil allowable by 326-IAC 7:

$$\begin{aligned}
 & \text{limit: } 1.6 \text{ lbs/MMBtu} \\
 & 1.6 \text{ lbs/MMBtu} \times \frac{0.000 \text{ Btu/gal}}{1000000} = \underline{0 \text{ lbs/1000gal}} \\
 & 0 \text{ lbs/1000gal} / \underline{100.0 \text{ lbs/1000 gal}} = \underline{0.000} \\
 & \text{Sulfur content must be less than or equal to } \underline{0.000} \% \text{ to comply with 326 IAC 7}
 \end{aligned}$$

D. The following calculations determine the maximum sulfur content of distillate #4 fuel oil allowable by 326-IAC 7:

$$\begin{array}{rclcl}
 \text{limit:} & 0.5 \text{ lbs/MMBtu} & & & \\
 & 0.5 \text{ lbs/MMBtu} \times & \underline{139000.000 \text{ Btu/gal}} & = & 69.5 \text{ lbs/1000gal} \\
 & 69.5 \text{ lbs/1000gal} / & \underline{150.0 \text{ lbs/1000 gal}} & = & \underline{0.463} \\
 & & \underline{0.463} & \% \text{ to comply with 326 IAC 7} & 
 \end{array}$$

Sulfur content must be less than or equal to  
and to limit SO2 emissions to 99 tons per year or less.

### III. Limited Potential Emissions

#### FUEL USAGE LIMITATION: BASED ON NOx

##### FUEL USAGE LIMITATION FOR HOT OIL HEATER ALONE (OIL)

$$\begin{array}{rclcl}
 0.37 \frac{\text{tons NOx}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 745.53 \frac{\text{lbs NOx}}{\text{year}} \\
 745.53191489362 \frac{\text{lbs NOx}}{\text{year}} & / & 20 \frac{\text{lbs NOx}}{\text{kgal}} & = & 37.28 \frac{\text{kgal}}{\text{year}} \\
 37.28 \frac{\text{kgal}}{\text{year}} & * & \frac{99.00 \text{ tons/year}}{0.37276595745 \text{ tons/year}} & = & \underline{0.0 \text{ gal fuel}} \frac{\text{year}}{\text{year}}
 \end{array}$$

##### FUEL USAGE LIMITATION FOR BURNER & HEATER (Gas)

$$\begin{array}{rclcl}
 33.11 \frac{\text{tons NOx}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 66226 \frac{\text{lbs NOx}}{\text{year}} \\
 66226 \frac{\text{lbs NOx}}{\text{year}} & / & 100.0 \frac{\text{lbs NOx}}{\text{MMcf}} & = & 662.26 \frac{\text{MMcf}}{\text{year}} \\
 662.26 \frac{\text{MMcf}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{33.11 \text{ tons/yr}} & = & \underline{0.0 \text{ MMcf}} \frac{\text{year}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

##### FUEL USAGE LIMITATION FOR BURNER (#3 Oil)

$$\begin{array}{rclcl}
 46.97 \frac{\text{tons NOx}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 93937.02 \frac{\text{lbs NOx}}{\text{year}} \\
 93937.02 \frac{\text{lbs NOx}}{\text{year}} & / & 20 \frac{\text{lbs}}{1000 \text{ gal}} & = & 4696.85 \frac{\text{kgal}}{\text{year}} \\
 4696.85 \frac{\text{kgal}}{\text{year}} & * & \frac{28.53 \text{ tons/yr}}{46.97 \text{ tons/yr}} & = & \underline{2852.7 \text{ kgal}} \frac{\text{year}}{\text{year}} \text{ FESOP Limit} \\
 & & \text{Note } 28.53 = 100 - \text{PTE (hot oiler heater+diesel generator)} & & \text{Limiting Case}
 \end{array}$$

#### FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

$$\begin{array}{rclclcl}
 0.37 \frac{\text{tons NOx}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 745.53 \frac{\text{lbs NOx}}{\text{year}} \\
 745.53 \frac{\text{lbs NOx}}{\text{year}} & / & 0.0 \frac{\text{lbs}}{1000 \text{ gal}} & = & 0.00 \frac{\text{kgal}}{\text{year}} \\
 0.00 \frac{\text{kgal}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{0.37 \text{ tons/yr}} & = & 0.0 \frac{\text{kgal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

#### FUEL USAGE LIMITATION FOR BURNER (Waste Oil)

$$\begin{array}{rclclcl}
 0.00 \frac{\text{tons NOx}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 0.00 \frac{\text{lbs NOx}}{\text{year}} \\
 0.00 \frac{\text{lbs NOx}}{\text{year}} & / & 0.0 \frac{\text{lbs}}{1000 \text{ gal}} & = & 0.00 \frac{\text{kgal}}{\text{year}} \\
 0.00 \frac{\text{kgal}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{0.00 \text{ tons/yr}} & = & 0.0 \frac{\text{kgal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

#### FUEL USAGE LIMITATION: BASED ON SO2

##### FUEL USAGE LIMITATION FOR HOT OIL HEATER ON OIL

$$\begin{array}{rclclcl}
 1.06 \frac{\text{tons SO2}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 2117.3106383 \frac{\text{lbs SO2}}{\text{year}} \\
 2117.3106382979 \frac{\text{lbs SO2}}{\text{year}} & / & 70.0 \frac{\text{lbs SO2}}{\text{kgal}} & = & 30.25 \frac{\text{kgal}}{\text{year}} \\
 30.247294832827 \frac{\text{kgal}}{\text{year}} & * & \frac{99.0 \text{ tons/year}}{1.05865531915 \text{ tons/year}} & = & 0.0 \frac{\text{gal fuel}}{\text{year}}
 \end{array}$$

##### FUEL USAGE LIMITATION FOR BURNER AND HOT OIL HEATER (Gas)

$$\begin{array}{rclclcl}
 0.199 \frac{\text{tons SO2}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 397.35 \frac{\text{lbs SO2}}{\text{year}} \\
 397.35 \frac{\text{lbs SO2}}{\text{year}} & / & 0.6 \frac{\text{lbs SO2}}{\text{MMcf}} & = & 662.26 \frac{\text{MMcf}}{\text{year}} \\
 662.26 \frac{\text{MMcf}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{0.20 \text{ tons/yr}} & = & 0.0 \frac{\text{MMcf}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$



**FUEL USAGE LIMITATION FOR BURNER (#3 oil)**

$$\begin{array}{rclclcl}
 \frac{133.4 \text{ tons SO}_2}{\text{year}} & * & \frac{2000 \text{ lbs}}{\text{ton}} & = & \frac{266781.14 \text{ lbs SO}_2}{\text{year}} \\
 \\ 
 \frac{266781.14 \text{ lbs SO}_2}{\text{year}} & / & \frac{56.8 \text{ lbs}}{1000 \text{ gal}} & = & \frac{4696851.0638 \text{ gal}}{\text{year}} \\
 \\ 
 \frac{4696851.06 \text{ gal}}{\text{year}} & * & \frac{89.361 \text{ tons/yr}}{133.39 \text{ tons/yr}} & = & \frac{3146514.1 \text{ gal}}{\text{year}} & \text{FESOP Limit} \\
 & & \text{Note 89.36 = 100 - PTE (hot oiler heater+diesel generator)} & & & \text{Not Limiting} \\
 & & \text{See Below for calculation of \#4 oil limit} & & & \text{See NOx}
 \end{array}$$

**FUEL USAGE LIMITATION FOR BURNER (#4 Oil)**

$$\begin{array}{rclclcl}
 \frac{1.1 \text{ tons SO}_2}{\text{year}} & * & \frac{2000 \text{ lbs}}{\text{ton}} & = & \frac{2117.3106383 \text{ lbs SO}_2}{\text{year}} \\
 \\ 
 \frac{2117.31 \text{ lbs SO}_2}{\text{year}} & / & \frac{0.0 \text{ lbs}}{1000 \text{ gal}} & = & \frac{0 \text{ gal}}{\text{year}} \\
 \\ 
 \frac{0.00 \text{ gal}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{1.06 \text{ tons/yr}} & = & \frac{0.0 \text{ gal}}{\text{year}} & \text{FESOP Limit}
 \end{array}$$

**FUEL USAGE LIMITATION FOR BURNER (Waste Oil)**

$$\begin{array}{rclclcl}
 \frac{0.0 \text{ tons SO}_2}{\text{year}} & * & \frac{2000 \text{ lbs}}{\text{ton}} & = & \frac{0.00 \text{ lbs SO}_2}{\text{year}} \\
 \\ 
 \frac{0.00 \text{ lbs SO}_2}{\text{year}} & / & \frac{0.0 \text{ lbs}}{1000 \text{ gal}} & = & \frac{0.00 \text{ gal}}{\text{year}} \\
 \\ 
 \frac{0.00 \text{ gal}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{0.00 \text{ tons/yr}} & = & \frac{0.0 \text{ gal}}{\text{year}} & \text{FESOP Limit}
 \end{array}$$

**Appendix A: Emission Calculations**  
**Internal Combustion Engines - Diesel Fuel**  
**Turbine (>600 HP)**

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**Company Name:** Freesen, Inc.  
**Plant Location:** Rogers Group, Highway 136  
**County:** Warren  
**Part 70:** F 171-11946  
**Plt. ID:** 171-05213  
**Date:** February 29, 2000

**Generator**

**A. Emissions calculated based on heat input capacity (MMBtu/hr)**

Heat Input Capacity  
MM Btu/hr

S=  = WEIGHT % SULFUR

N/A

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.1	0.0573	0.0 (1.01S)	0.0 **see below	0.1	0.85
Potential Emission in tons/yr	0.0	0.0	0.0	0.0	0.0	0.0

\*\*NOx emissions: uncontrolled = 3.2 lb/MMBtu, controlled with ignition timing retard = 1.9 lb/MMBtu

**B. Emissions calculated based on output rating (hp)**

Heat Input Capacity  
Horsepower (hp)

Potential Throughput  
hp-hr/yr

S=  = WEIGHT % SULFUR

676.0

5921760.0

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.0007	not provided	0.0032 (.00809S)	0.024 **see below	0.00071	0.00550
Potential Emission in tons/yr	2.07	0.0	9.58	71.1	2.09	16.3

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Note that the PM10 emission factor in lb/hp-hr is not provided in the Supplement B update of AP-42.

An average conversion factor of 1hp-hr = 7,000Btu is provided below.

**Methodology**

Potential Throughput (hp-hr/yr) = hp \* 8760 hr/yr

Emission Factors are from AP 42 (Supplement B 10/96)Table 3.4-1 and Table 3.4-2

1 hp-hr = 7000 Btu, AP42 (Supplement B 10/96), Table 3.3-1, Footnote a.

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] \* 8760 hr/yr / (2,000 lb/ton )

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton )

\*No information was given regarding which method was used to determine the PM emission factor or whether condensable PM is included. The PM10 emission factor is filterable and condensable PM10 combined.

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

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## § 60.90

NOTE: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From—	To—	Multiply by—
g/scm .....	kg/scm .....	$10^{-3}$
mg/scm .....	kg/scm .....	$10^{-6}$
ppm (SO <sub>2</sub> ) .....	kg/scm .....	$2.660 \times 10^{-6}$
ppm (SO <sub>2</sub> ) .....	lb/scf .....	$1.660 \times 10^{-7}$

(e) For the purpose of reports under § 60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under § 60.82.

[39 FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975; 48 FR 23611, May 25, 1983; 48 FR 4700, Sept. 29, 1983; 48 FR 48669, Oct. 20, 1983; 54 FR 6666, Feb. 14, 1989]

### § 60.85 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the SO<sub>2</sub> acid mist, and visible emission standards in §§ 60.82 and 60.83 as follows:

(1) The emission rate (E) of acid mist or SO<sub>2</sub> shall be computed for each run using the following equation:

$$E = (CQ_{sd}) / (PK)$$

where:

E=emission rate of acid mist or SO<sub>2</sub> kg/metric ton (lb/ton) of 100 percent H<sub>2</sub>SO<sub>4</sub> produced.

C=concentration of acid mist or SO<sub>2</sub>, g/dscm (lb/dscf).

Q<sub>sd</sub>=volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).

P=production rate of 100 percent H<sub>2</sub>SO<sub>4</sub>, metric ton/hr (ton/hr).

K=conversion factor, 1000 g/kg (1.0 lb/lb).

(2) Method 8 shall be used to determine the acid mist and SO<sub>2</sub> concentrations (C's) and the volumetric flow rate (Q<sub>sd</sub>) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume

for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).

(3) Suitable methods shall be used to determine the production rate (P) of 100 percent H<sub>2</sub>SO<sub>4</sub> for each run. Material balance over the production system shall be used to confirm the production rate.

(4) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:

(i) The integrated technique of Method 3 is used to determine the O<sub>2</sub> concentration and, if required, CO<sub>2</sub> concentration.

(ii) The SO<sub>2</sub> or acid mist emission rate is calculated as described in § 60.84(d), substituting the acid mist concentration for C<sub>s</sub> as appropriate.

[54 FR 6666, Feb. 14, 1989]

## Subpart I—Standards of Performance for Hot Mix Asphalt Facilities

### § 60.90 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.

(b) Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977, as amended at 51 FR 12325, Apr. 10, 1986]

## § 60.91

### § 60.91 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Hot mix asphalt facility* means any facility, as described in § 60.90, used to manufacture hot mix asphalt by heating and drying aggregate and mixing with asphalt cements.

[51 FR 12325, Apr. 10, 1986]

### § 60.92 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

(1) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf).

(2) Exhibit 20 percent opacity, or greater.

[39 FR 9314, Mar. 8, 1974, as amended at 40 FR 46259, Oct. 6, 1975]

### § 60.93 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in § 60.92 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).

(2) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

[54 FR 6667, Feb. 14, 1989]

## 40 CFR Ch. I (7-1-99 Edition)

### Subpart J—Standards of Performance for Petroleum Refineries

#### § 60.100 Applicability, designation of affected facility, and reconstruction.

(a) The provisions of this subpart are applicable to the following affected facilities in petroleum refineries: fluid catalytic cracking unit catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plants of 20 long tons per day (LTD) or less. The Claus sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility, provided it processes gases produced within a petroleum refinery.

(b) Any fluid catalytic cracking unit catalyst regenerator or fuel gas combustion device under paragraph (a) of this section which commences construction or modification after June 11, 1973, or any Claus sulfur recovery plant under paragraph (a) of this section which commences construction or modification after October 4, 1976, is subject to the requirements of this subpart except as provided under paragraphs (c) and (d) of this section.

(c) Any fluid catalytic cracking unit catalyst regenerator under paragraph (b) of this section which commences construction or modification on or before January 17, 1984, is exempted from § 60.104(b).

(d) Any fluid catalytic cracking unit in which a contact material reacts with petroleum derivatives to improve feedstock quality and in which the contact material is regenerated by burning off coke and/or other deposits and that commences construction or modification on or before January 17, 1984, is exempt from this subpart.

(e) For purposes of this subpart, under § 60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following January 17, 1984. For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or

## Environmental Protection Agency

## § 60.111b

(2) Each owner or operator of each storage vessel equipped with a vapor recovery and return or disposal system in accordance with the requirements of § 60.112a (a)(3) and (b).

[45 FR 23379, Apr. 4, 1980]

### **Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984**

SOURCE: 52 FR 11429, Apr. 8, 1987, unless otherwise noted.

#### **§ 60.110b Applicability and designation of affected facility.**

(a) Except as provided in paragraphs (b), (c), and (d) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 40 cubic meters ( $\text{m}^3$ ) that is used to store volatile organic liquids (VOL's) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) Except as specified in paragraphs (a) and (b) of § 60.116b, storage vessels with design capacity less than  $75 \text{ m}^3$  are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart.

(c) Except as specified in paragraphs (a) and (b) of § 60.116b, vessels either with a capacity greater than or equal to  $151 \text{ m}^3$  storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than or equal to  $75 \text{ m}^3$  but less than  $151 \text{ m}^3$  storing a liquid with a maximum true vapor pressure less than 15.0 kPa are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart.

(d) This subpart does not apply to the following:

(1) Vessels at coke oven by-product plants.

(2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

(3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.

(4) Vessels with a design capacity less than or equal to  $1,589.874 \text{ m}^3$  used for petroleum or condensate stored, processed, or treated prior to custody transfer.

(5) Vessels located at bulk gasoline plants.

(6) Storage vessels located at gasoline service stations.

(7) Vessels used to store beverage alcohol.

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989]

#### **§ 60.111b Definitions.**

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

(a) *Bulk gasoline plant* means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.

(b) *Condensate* means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

(c) *Custody transfer* means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

(d) *Fill* means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

(e) *Gasoline service station* means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

(f) *Maximum true vapor pressure* means the equilibrium partial pressure exerted by the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average